A STICULTURE 1 AGRICULTURE 1 Volume: 96 - No. 6 Tune 2021 AGRICULTURE 1 AGRICULTURE

Feral swine meeting planned in Clinton

The N.C. Feral Swine Task Force is hosting a free event in Sampson County to highlight the resources available to combat feral swine in the local community. The event will be held June 24 from 6 to 8 p.m. at the Sampson County Livestock Arena, 55 Agriculture Place, Clinton. For more information visit: https://www.ncferalswine.org/.

Upcoming ad deadlines

July 1 for August paper Aug. 2 for September Sept. 1 for October Oct. 1 for November, And Nov. 1 for December

Feral swine NC poised to be a leader in bioenergy

In 2018, North Carolina produced its first natural gas. This gas came from pig farms.

Eastern North Carolina is dotted with pig farms, with the state ranking second in the United States in the production of hogs. It is no surprise that the first biogas operation is located in the heart of these swine operations, Duplin County.

Currently five farms have covered digesters, which are synthetically lined lagoons with thermally welded covers placed on top that can expand or contract with the amount of gas being produced. The digesters create an oxygen-free home that is the best environment for the specific bacteria that consumes the manure in the covered lagoon and then expire biogas. This captured gas is about 65 percent methane, a major constituent of natural gas. The biogas is piped to a local, central upgrade station where it is refined and injected into the natural gas pipeline before being sent to homes and businesses as energy.

The gas leaves farm at a pressure of 5 PSI (for reference –

most car tires are filled to around 35 PSI) and a central gas upgrading system (above) must get the gas to 1,000 PSI for use in the pipeline.

Current energy produced from the state's five digesters equal enough energy to power two towns the size as Kenansville. The N.C. Department of Environmental Quality recently approved another project with four more farms. According to Gus Simmons, director of bioenergy for Winston-Salem based Cavanaugh and Associates, which focuses on bioenergy solutions, the potential for more is tremendous.

"Capturing biogas from these farms significantly reduces the state's greenhouse grass emissions," Simmons said. "It is actually one of the cleanest, most carbon negative fuels that we can consume as a country."

According to the National Pork Producers Council, the swine industry is not a large producer of greenhouse gases. The U.S. swine herd contributes only .4% of the total greenhouse gas emissions in the country. However, since North



got to be

Engineers Kraig Westerbeek, left, of Smithfield Foods, and Gus Simmons, right, of Cavanaugh, standing on the synthetic liner of a digester at a Duplin County farm.

Carolina pig farms use anaerobic lagoons which emit a small amount of methane and carbon dioxide, it makes sense to capture it and use it as a renewable energy source that diversifies North Carolina's energy portfolio.

"Currently in North Carolina our energy is imported," Simmons said. "This project provides a local source of energy and guards against supply disruptions for our critical industries. North Carolina could easily be one of the top three richest states in renewable energy."

More than half of U.S. states have biogas projects, with more under consideration every day as states begin to realize the potential of this renewable energy source. North Carolina has an advantage in that our mild winters allow for year-round methane produc-

(See Bioenergy, pg. 5)

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It's renewal time again for the Agricultural Review. Subscribers can either mail the card at left, or go to www.AgReview.org.

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From the tractor

by Agriculture Commissioner Steve Troxler

Do you know how good it feels to say that I have some good news to share? Pretty good!

N.C. State Economist Mike Walden recently released his latest economic impact numbers for agriculture and agribusiness, and those numbers show that the industry has grown to \$95.9 billion, up \$3.2 billion from 2019 numbers.

Perhaps equally as important, this new number inches us even closer to the \$100 billion goal I have set for the industry. I know we will soon reach that milestone, and I look forward to setting a new and bigger goal.

Dr. Walden's report is something I look forward to every year. I am curious to see how the industry is doing, especially as we have faced many challenges along the way. I am proud that we continue to see growth in the industry and have every year since I took office. In comparison, in 2005, the economic impact of agriculture and agribusiness was \$59 billion.



Commissioner Troxler

In just the past six years, agriculture and agribusinesses have weathered devastating storms and flooding – some of the worst this state has ever seen. Commodity prices have been stubbornly low while costs seem to only go up. Add in trade issues and lawsuits and a global pandemic and it is quickly obvious just how com-

(See Troxler, pg. 3)

Agricultural Review

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Troxler promotes Beal to director of Food Distribution

Agriculture Commissioner Steve Troxler recently named Walter Beal of Kittrell as the new director of the Food Distribution Division in the N.C. Department of Agriculture and Consumer Services. Beal replaces Gary Gay, who retired at the end of April after 36 years with the department.

"2020 was a record-breaking year for the Food Distribution Division as food banks

and feeding groups saw unprecedented community need," said Agriculture Commissioner Steve Troxler. "Walter has been an integral part of the ramped-up efforts to get food out to those who need it and I know he's well-prepared to meet the challenges of the Food Distribution Division."

Beal's previous experience includes 12 years of work in warehouse operations for Roses Discount Stores, two years in management with Royal Home Fashions and more than 18 years operating his own general contracting business.



He has been with NCDA&CS for nine years, starting as a storeroom manager in March of 2012 and promoted five months later to warehouse manager. He remained in that position for more than eight years and was promoted again this past December to become assistant director of commodity distribution.

Beal was born and raised in Vance County where both

sides of his family farmed, and his father delivered milk for Pine State Creamery for more than three decades. He spent summers helping two uncles harvest tobacco. He and his wife of almost 40 years, Beverly, have a daughter, Jessica. Beal is active in the community, serving with the Lions Club, coaching high school sports, serving on the PTO and booster club and serving as Clerk of Session and as an Elder in his church for many years.

26 youth awarded State Fair Junior Livestock Scholarships

Twenty-six North Carolina students have been named recipients of 2021 N.C. State Fair Youth Livestock Scholarships, Agriculture Commissioner Steve Troxler announced.

The scholarships are designed for high school seniors and students currently enrolled in an institute of higher education who have participated in the junior livestock or market turkey shows at the N.C. State Fair.

The scholarships are typically funded by sponsors of the annual N.C. State Fair Junior Livestock Sale of Champions. Sponsors stepped up in 2020 to support the youth scholarships because the sale was not held due to the pandemic. A total of 25 scholarships valued at \$1,000 each were awarded this year. One \$1,500 scholarship

was also offered and paid for by Farm Credit of North Carolina.

"As Agriculture Commissioner, I am proud to help cultivate the future of agriculture in our state through these scholarships," Troxler said. "We are proud to have awarded over \$300,000 in scholarships since starting this program in 2015."

A selection committee evaluated applicants based on their involvement with N.C. State Fair junior livestock shows, academic achievement, extracurricular activities and an essay. Each application was assigned a number and identifying information was removed before evaluation.

Following is a list of the scholarship recipients by county, along with the university or community college they will attend this fall:

Alamance

-- Madison Sifford;

Caswell

-- Katherine Eastep;

Cleveland

-- Rex Howard;

Guilford

-- Lakota Sockwell;

Halifax

Zachary Keeter; Harnett

-- Mason Blinson;

Henderson

-- Haley Hargus; Iredell

Emily Holland;

Johnston

- -- Tanner Bentley
- -- Isabell Fricke;
- -- Kadence Overby
- -- Mary Wood;
- Lincoln -- Regan Mitchum

Randolph

Rylee Schofield;

Rowan

Cynthia Connolly;

Stanly

- -- Marcie Harward;
- -- Mattie Harward

Stokes

- -- Lynae Bowman
- -- Rachel Brown; -- Allison Hartman;

Swain

-- Abbegail King;

Wake

-- Mason Judy;

Wayne

-- Taylor Glover;

Wilson

-- Thaddeus Sharp, V;

- Ethan Thompson.

The \$1,500 Farm Credit Premium Scholarship winner was Tristen Fulton of Davidson.

The application for the 2021 scholarship class will be posted online at nestatefair.org in early January 2022.

For more information on how individuals and organizations can support the Junior Livestock Sale of Champions or the scholarship program, contact Neil Bowman, director of N.C. State Fair livestock shows, at neil.bowman@ncagr.gov or 919-270-7094.

Congratulations to all of the scholarship recipients. Hope to see you at the N.C. State Fair Livestock shows in October.

Bucolic briefs

As a way to help farmers and agricultural workers stay safe at work, the N.C. Department of Labor offers safety videos on a variety of topics through its YouTube channel. Video topics include: preventing green tobacco sickness, hazard communication, tobacco harvester safety, heat stress, migrant housing requirements, forklift safety, and information about the NCDOL's Gold Star Growers program. The videos are in English and Spanish to increase understanding of safety hazards and preventing accidents. To learn more about the NCDOL and the Agricultural Safety and Health Bureau, go to www.nclabor.com or call 1-800-NC-LABOR (800-625-2267). NCDOL is also on Facebook and Twitter (@NCDOL)

Beekeepers with bees for rent and growers interested in bee pollination services can post their information on the BeeLinked website at www.ncagr.com/beelinked. The site is hosted by the N.C. Department of Agriculture and Consumer Services and the N.C. State University Apiculture Program. Anyone interested in listing their information can do so by filling out an online Submit Your Ad form on the BeeLinked page or by contacting NCDA&CS at 919-233-8214 or by email at NCHoneybee@ncagr.gov or call NCSU at 919-515-1660. The NCDA&CS Plant Industry Division regulates the movement of agricultural or related items capable of spreading harmful insects, diseases, and other pests. Beekeepers participating in this program will be required to comply with all honey and bee industry regulations.

The N.C. Ag Finance Authority provides credit to agriculture in areas where financing is not available at reasonable rates and terms. The agency originates, services and finances farm loans, rural business loans, disaster loans and cotton gin loans. It also offers tax-exempt ag development bonds for agribusiness processing, ag-related manufacturing or ag waste disposal. For more about Ag Finance Authority programs or to request a loan application, call 919-790-3949 or email at RequestLoanInfo@ncagr.gov.

 $Search for local produce, meats and special typroducts at the Gotto\,BeNCA griculture website$ at https//gottobenc.com/. You can search by location or region in the state or by commodity.

N.C. Department of Agricu 1001 Mail Service Center Raleigh, NC 27699-1001 & Consumer Services

To: Agricultural Review

Protecting bee health is Hopkins' life's work

Hopkins is the NCDA&CS Apiary Inspection Supervisor, which puts him in charge of helping beekeepers across the state maintain the health and safety of their hives. The program includes six inspectors and a lab technician who together serve the entire state.

"What we do is inspect the brood nest of honeybee colonies to ensure that the growers get the pollination services that the bees provide for them. That's why even though bees are animals, we work in the Plant Industry division," he said. "It's about protecting the pollinators that help sustain agriculture."

Hopkins has spent 32 years with the NCDA&CS, but he has been around bees for most of his life. Born in Bernardsville, NJ, Hopkins was introduced to beekeeping at an early age.

"It started when I was around ten. They used to deliver bread back in those days, and the delivery man was a beekeeper. He would come and sell some comb honey along with selling the bread, and I just became fascinated by what he was doing," Hopkins said. "I really owe it to him for getting me started."

When Hopkins moved to North Carolina to marry his wife in 1988, he sold the bees he had been keeping in New Jersey due to a quarantine in North Carolina on bringing in the insects from out of state. He soon met then-supervisor Logan Williams, who hired him on as a temporary inspector.

That job eventually turned into a permanent position, and around 1993 Hopkins took over Williams' position as head of the apiary program. In the decades since, no two days have been quite the same, he said.

"It's pretty hard to pinpoint what an 'average' day would be, it varies quite a bit. Right now for instance we're doing probably our most intensive inspections for commercial beekeepers who are moving out of state as well as selling to other beekeepers instate," he said. "We have a permit-to-sell list that we maintain that keeps us busy from the end of February through into the beginning of March, and then the rest of year we do routine inspections for anybody who has a request for problems with their bees."

A love of animals runs through Hopkins' family. He previously worked as a saddler while his wife works as a horsemanship instructor, and the two first met in Florida due to their shared work with horses.

Education is a big part of what

Hopkins' work, as he talks to beekeepers and teaches them about issues they need to be aware of. Chief among them is finding a better way to adapt to the Varroa mite, an exotic pest which has become ubiquitous in colonies around the world.

"We're not going to be able to eradicate them, but finding a way to get colonies to the point where they are resistant enough, that should be the goal of all beekeepers," Hopkins said. "There are a lot of people who don't understand how big of a problem this one pest is, and it's important that everyone knows this."

Inspections give Hopkins the opportunity to interact with all kinds of people with all kinds of takes on beekeeping.

"Bees are something that have always been fun for me. Working with bees and seeing how other beekeepers are working with them, everybody has a different take on how they manage their colonies," he said. "It's just something new every day."

Hopkins has worked with bees his entire life, but he said he still learns something new every day.

"Anybody who says they know what's going on with bees, they're missing too much," he said. "They'll always show you something new."



State apiarist Don Hopkins, right, inspects a bee hive

Troxler -

(Continued from pg. 1)

mitted and tough farmers and their families have to be to survive.

And yet, the economic impact of agriculture has increased over \$36 billion.

Itreallyreinforces my belief that this is an industry with a bright future. Food and fiber production will always be essential. And, as our population grows, so does the market for food, housing and other amenities.

If you dive into Dr. Walden's numbers a bit deeper, the total economic impact breaks down into \$81.7 billion attributed to agriculture and food industry; \$4.4 billion in production of natural fiber and \$9.8 billion in forestry production.

As his latest numbers show, this is an industry that employs 789,000 people or roughly 17.5 percent of our workforce. It is an economic driver that fuels rural North Carolina and remains our No. 1 industry.

But agriculture isn't resting. We are continuing to steer this industry towards growth.

A few examples of that focus include broadband access, meat and seafood processing grants, food manufacturing and research.

There's been considerable discussion about using COVID money to help expand broadband access to our rural communities. This would significantly benefit farmers, agribusiness owners and our rural communities and I fully support efforts to extend access.

We are now in the third phase of funding for meat and seafood processing grants for small processing facilities, which will help create new markets for locally produced and sourced proteins.

And we continue to focus on recruiting and developing more food manufacturing opportunities in the state.

In addition, agriculture research on many fronts is focused on increasing yields, improving efficiency, fine-tuning production techniques and developing new crops and new plant varieties – all to improve farm profitability and sustainability.

I am excited about the future of agriculture and am encouraged by the continued growth of this industry. Like I said, it feels good to have some good news for a change.

The deadline for the July issue is June 1, the deadline for the August issue is July 1. Please note, our fax number has changed to 919-733-5047.

Volunteers leave Headwaters State Forest better by efforts

As easily as garbage becomes litter, commitment becomes action and action becomes solutions. If what is put down is picked up and disposed of properly, restoration can begin. Thanks to Carol Vickery and Paula Swartz, restorative headway is being made at Headwaters State Forest.

Located about 10 miles south of Brevard in southern Transylvania County, Headwaters State Forest is a uniquely special forest wonderland combining natural resource conservation with dispersed recreational adventure. Primitive, wild, a working forest. And, as its namesake implies, Headwaters State Forest encompasses the headwaters of the East Fork of the French Broad River, with 20 waterfalls, more than 50 miles of high-quality trout streams, and rare Appalachian mountain bogs, solidifying its importance to provide clean drinking water for local communities. Just as critical headwaters flow through the forest, garbage will too if we let it. Carol and Paula won't.

"Carol and Paula, two local ladies who love Headwaters State Forest as much as I do, showed up on my radar several years ago," said Michael Cheek, assistant regional forester and supervisor at Headwaters State Forest. "In fact, I came upon them in the forest



Volunteers Carol Vickery and Paula Swartz pictured with Michael Cheek, assistant regional forester and supervisor at Headwaters State Forest,

back then, long before they were supposed to be in there."

Michael goes on to describe the conversation that started it all.

"This past autumn, Carol contacted me with some questions about the Blue Wall map devel-

oped by Pisgah Map Company. During our conversation, she asked if she could clean up some of the trash in the forest, garbage that had been left by the previous owner and ten-

(See Headwaters, pg. 5)

Grandkids continue family legacy with The Farm at Bogue

This article is part of the NCDA&CS Farm Feature Friday series, where we showcase a North Carolina farmer every Friday on social media. The #FarmFeatureFriday paign will run for an entire year on our Facebook, Twitter and Instagram pages. Be sure to tune in each Friday afternoon on social and help show your support for our local farmers!

Life has a funny way of bringing us back home to the things that we love. At least that's the case for Bert Hadden and Justin Guthrie, owners of The Farm at Bogue. "Our grandfather owned this land and we worked here with him growing up, but when he passed away in 2011 the land went unused for several years until we came back in 2018," Bert said, "we always enjoyed being on the farm growing up and have a lot of fond memories here so it's not surprising that we ended up farming years later."

The Farm at Bogue is more famous for their varieties of lettuce and melons, but they also grow a variety of fresh fruits and vegetables, including cucumbers, kale, basil, arugula, peppers and okra. One of the unique crops that they grow is a purple cayenne pepper called Buena Mulata. "Everyone loves the Mulata pepper for its visual appeal because its very pretty," Bert said, "but it also has a mild heat and great flavor."

A typical day on the farm varies based on season, but Bert always starts in the greenhouse and propagation house checking on the plants and assessing



that visit and purchase their products. "There is no greater pride than having customers come up and tell us how much they enjoy our products," she said.

Products from The Farm at Bogue can be found in their online store as well as at a variety of local markets on the weekends, including the Cedar Point Farmers Market, the Newbern Craven County Area Farmers Market, the Coastal Community Farmers Market and the Olde Beaufort Farmers' Market. Additionally, several restaurants in the Beaufort area use herbs and lettuce from their farm in a variety of dishes. "Food is art," Bert said, "and seeing the partnership between us, the farmer, who grows the food and the chef who prepares it in a variety of new and innovative ways is incredible." Bert's favorite dishes from her farm are a salad, okra poppers and zucchini pizza.

The Farm at Bogue is also a member of the Got To Be N.C. program where they enjoy being a part of the eat local movement. "Know your farmer, know your food' is a phrase that we hear and say a lot at the farmers market and around the community," Bert said, "there are a plethora of reasons that people should eat local, but building a relationship with a local farmer is the best place to

In the future, Bert and Justin hope to expand the farm one step at a time, starting with adding another structure to grow more greens and vine crops. "There are endless possibilities of things that we want to add and do here at the farm," Bert said, "but we are taking it one step at a time and growing where we are needed." Bert and Justin both enjoy the outdoors so when they aren't farming, you can find them enjoying nature by hiking local trails, camping and taking trips to national



what needs to be tended or harvested that day. The end of each week is dedicated to preparing for the weekend farmers market and Sunday is the day for clean up around the farm and transplanting. "Each day is always different because something is always on fire," Bert said, "in other words, something new always pops up needing our attention but we certainly never get bored."

Although juggling the balance between personal life and farming can be difficult, Bert says there is no greater joy than interacting with her farmer friends, or rather family, at the market and building relationships with the customers

NCDA&CS inspectors check health of nursery stock that looks like Phytophthora

Spring is upon us, and with it comes the start of the North Carolina Department of Agriculture and Consumer Services' nursery inspection season.

Inspections began formally on April 1, and are carried out by the Plant Industry division's Plant Protection section. Inspections are fundamentally about keeping North Carolina safe from invasive species, and the nursery program's goal is to facilitate the movement of nursery stock while preventing the introduction and spread of insects, plant diseases and invasive weeds through the movement of plant material.

Responsibility for this falls on the nursery inspectors who cover 19 regions across North Carolina. April Bauder is the Central Region Field Certification Specialist, responsible for inspecting nurseries in Durham, Orange, Person and Wake counties. She said that inspections both help nurseries sell their products nationally and internationally while also protecting North Carolina and other states from dangerous plant pests.

"We have two types of nurseries licenses for businesses that grow nursery stock; registered and certified. Registered nurseries are less than one acre and only sell within North Carolina, while certified nurseries are larger than an acre and ship outside the state." she said. "Especially with the certified nurseries, it's important to know the regulations of the states you're selling to, and we work with growers to make sure they're following those guidelines."

Sometimes that interaction is as simple as pointing out minor pests like aphids or tea scale, in which case inspectors may simply make the growers aware of the pest and discuss possible treatment options.

Plant Industry division staff make control recommendations following the NC Agricultural Chemicals Manual published by North Carolina State University. In the case of state or federal regulated pests - more dangerous pests which the department



April Bauder, NCDA&CS Central Region Field Certification Specialist, looks over a discolored leaf during a nursery inspection.

is actively working to mitigate or keep out of the state – inspectors cannot give as much leeway. One example of such a regulatory pest is Phytophthora ramorum, a plant pathogen which causes the Sudden Oak Death disease.

"In the case of regulatory pests, we follow strict treatment guidelines prescribed in state or federal

treatment protocols. For imported fire ants, or Japanese Beetle, for example, we are required to follow the USDA-APHIS-PPQ guidelines for treatment. "If it's a common unregulated pest like tea scale, we try not to tell them exactly what they have to treat with. But, for example if I'm doing an inspection and I see something

ramorum, and I send in a sample for testing and it comes back positive for this destructive disease not found in NC, we then have to take a much stronger action like destruction to prevent the spread of the disease to NC forests.

One of the nurseries Bauder visits often is Camellia Forest Nursery in Chapel Hill. True to its name, the nursery focuses primarily on Camellias, and Bauder kept a close eye on the pink and white flowers as she walked slowly through the rows of potted plants. Every now and then she would point out a small patch of tea scale or some slight discoloration in leaves all completely normal things to spot at a nursery but potentially easy to miss for the untrained eye. Bauder makes note of the small, routine details, even though they are likely not cause for alarm.

"When I see things like that,

(See Inspections, pg. 5)

Headwaters

(Continued from pg. 3)

ants of the property." Following that conversation, Michael met Carol and Paula at Headwaters State Forest and simply told the pair to "go for it."

So, they did, trekking through undeveloped and remote wildland with few developed trails and mainly informal paths and roadbeds. After 26 trips to the landfill, a loaded dumpster, two large trailer loads, 37 tires, 3 car batteries, and more than 130 bags of garbage, Headwaters is cleaner and greener.

According to Michael, "The area had served as a dumping ground for years. A lot of trash had been thrown over the embankments of the roadways."

Carol and Paula were catalysts, sparking a cleanup revolution for Headwaters State Forest. The pair elicited cleanup support from fellow locals including Marsha Devane, Bobby Reese, Dwayne "Smitty" Smith

with Transylvania County Solid Waste, and Charlie's Tire in Breyard

Everyone has a part to play in protecting and preserving our forestland, our natural resources, our Earth. Practicing Leave No Trace principles is a simple yet profound place to start. Pack out what you pack in, essentially picking up what you put down and disposing of it properly, leaving the environment intact so others may benefit and enjoy into the future.

Still, we'll always need the Carol's and Paula's of the world, picking up what others leave behind and inspiring others to do the same.

To learn more about Headwaters or other North Carolina state forests and how they are managed as working forests by the N.C. Forest Service, visit www.ncforestservice.gov.

Inspections

(Continued from pg. 4)

most of the time I'll just ask the growers about them so I know what's been going on," she said. "When you see some plants that don't look like they're doing as well, the growers will usually know why that is. Maybe those plants just got hit with a cold spell, or something was going on with their irrigation. Some plants are also just finnicky, and there a wide range of abiotic factors that go into evaluating why a plant looks unhealthy."

In the cases where neither Bauder nor the growers are sure what is causing an issue, Bauder can send a sample to North Carolina State University's Plant Disease and Insect Clinic for further diagnosis. Other experts within the NCDA&CS, such as state entomologist Whitney Swink or plant pathologist HT Tseng may also assist in identifying pests that inspectors may not be able to



Camelias are just one of many types of plants inspected by NCDA&CS.

nail down in the field.

Nursery inspections are part of the first line of defense against a wide variety of dangerous invasive species. Through their technical expertise and relationships with growers, inspectors in the field help keep North Carolina's natural resources safe while also protecting the quality of products sold within the state, around the country and worldwide. To learn more, visit http://www.ncagr.gov/plantindustry/plant/nursery/lictbl.

AgroTips

Prepare for a fall vegetable garden by soil testing.

Now is the best time to submit your soil samples for planning a fall vegetable garden. Soil samples submitted have faster turnaround times as the lab is less busy. This will allow for plenty of time to plan for liming and fertilizing. There is a belief among some gardeners that lime cannot be over-applied. Well, it can be. Soil pH that is too high from its over-application can adversely affect plant growth by potentially causing problems with micronutrient availability. Lime also works best if incorporated several months prior to planting since its reaction time is not immediate. Unlike fertilizer, however, it can be applied at any time when its recommended. For N-P-K fertilizers as recommended by soil test, their application needs to be timed near the time of planting and during the actual growing season, depending on the plant's needs. Additional information about timing of fertilizer application is found in this note www.ncagr.gov/agronomi/pdffiles/stnote4.pdf. So, begin planning and take the first step, submit a soil sample!

Test source water for irrigation systems.

Before you turn on that drip or overhead irrigation system, it is a good idea to collect samples of your source water and have it tested by the NCDA&CS Agronomic Division. Chemical problems with source water can affect plant growth and quality. By testing water now, you can correct any problems before you start irrigating your crops.

Solution analysis is a service that measures the chemical properties of water that affect plants. In eastern North Carolina, high alkalinity is a potential water problem. Irrigating with highly alkaline water can lead to an increase in soil pH that can limit availability of some essential plant nutrients, especially micronutrients.

The solution report indicates whether alkalinity is a potential problem and, if so, provides helpful advice to correct it. Some other potential source water problems include high soluble salts, iron, boron, sodium or chloride. Once identified, these problems can either be corrected or effectively managed to prevent plant growth problems.

If crop plants are stunted and/or discolored, check for nematodes.

The best way to find out if nematodes are responsible for an area of poor crop growth is to collect and submit two sets of soil samples: one for nematode assay and one for fertility analysis. An accurate diagnosis of nematode populations during the growing season provides a sound basis for effective management in the future. Knowing the species and numbers present facilitates informed selection of resistant varieties and crop rotation strategies.

Fertilize centipedegrass lawns in June.

June is the month to fertilize your centipede grass. Centipede grass differs in rate and schedule of fertilization from other warm season grasses. Centipede requires only 0.5 pound of nitrogen each year. Higher than desired soil pH and phosphorus or inadequate potassium may result in centipede growth problems. If soil sampling was not done in the previous 2-3 years, now is an excellent time to submit samples for faster turnaround times and to determine the rate and best fertilizer to use. Lime will also be recommended if needed.

Important Reminder: Do not fertilize cool-season lawn grasses—fescue, ryegrass and bluegrass—during the summer. Wait until September.

Summer is a good time to submit soil samples from lawns & gardens.

Summer is when the NCDA&CS soil testing lab can process samples most quickly —usually ten days or less. Homeowners and landscapers are urged to submit samples at this time and avoid the peak-season fee (late November through March). Farmers who are maintaining cool-season pastures can also submit soil samples now so they will be ready to apply phosphorus and potassium in late summer or fall.

Don't miss a single issue!

It is the annual renewal time for the newspaper. Clip the card from the front page of the June issue and return to the *Agricultural Review* offices or renew online at www.AgReview.org . You will need the subscriber number above your name and address to renew online.

Bioenergy

(Continued from pg. 1)



The gas leaves farm at a pressure of 5 PSI (for reference – most car tires are filled to around 35 PSI) and a central gas upgrading system (above) must get the gas to 1,000 PSI for use in the pipeline.

tion versus Midwest states where anaerobic bacteria fall dormant for five or six months out of the year.

"We believe that this approach that captures the biogas from agricultural practices not only strengthens the ag sector but provides assurances to the energy sector," Simmons said.

Engineers Kraig Westerbeek, of Smithfield Foods, and Gus Simmons, of Cavanaugh, standing on the synthetic liner of a digester at a Duplin County farm.

In 2016, Virginia-based Smith-field Foods was one of the first swine production companies in the country to set up a carbon reduction goal. At the time its goal was a 25% reduction in emissions in 25 years. The company reviewed its carbon footprint from grain production to pork consumption. A large portion of their carbon footprint comes from manure management.

"These projects help us meet our '25 by 25' goal," said Kraig Westerbeek, senior director of Smithfield Renewables. "We are really investing in manure-to-energy. Our hope is that 90 percent of finishing farms in eastern North Carolina would have manure-toenergy projects on them in the next 10 years. We think it is great technology and great for farmers. It is also great for the communities where these farms are located.

"We have figured the technology out," he added. "One of the key tenets is getting fresh manure into a digester. With our projects here in North Carolina, we offer the farmer an opportunity to install a digester and mixing pumps and then Smithfield invests in pipeline and the gas upgrading system." Farmers are given a long-term contract on the gas produced, which helps them make a return on their investment. The project is voluntary and any pig farmer in the area is eligible to participate whether or not they are contracted with Smithfield.

"When I look at these projects, I think they make all the sense in the world," Westerbeek said. "I understand that people have apprehension about something new, but when you stand here and see what we are doing I think you can see the opportunity NC has to be a leader in renewable energy in the United

Classified Advertising

Ads are run free for N.C. residents & can be submitted by mail to 1001 Mail Service Center, Raleigh NC 27699-1001; by e-mail at www.AgReview.org; or by fax to 919-733-5047. Ads *must* include name, address including zip code, phone number including area code, and *price or price range for every item* being sold.

The deadline for each issue is noon on the first working day of the month prior to publication. Limit is 30 words, editor reserves right to edit or reject ads. Limit 2 ads/person in different categories.



Bees, Supplies & Services For Sale

NOTICE

N.C. law requires a permit to sell honey bees in the state, with the following exceptions: sale of less than 10 hives in a calendar year, a one-time going-out-of-business sale of less than 50 hives, or the renting of bees for pollination purposes or to gather honey. Contact Don Hopkins, state apiarist, NCDA&CS, 1060 Mail Service Center, Raleigh, NC 27699-1001.

(14) 10-frame brood boxes, complete, clean frames, VGC, \$35 ea; sm frame boxes, VGC, \$10 ea. Randy Asbill, Asheboro 336-629-0037.

5-frame nucs, \$150; in cardboard nuc box, \$10 extra. Doug Medlin, Marshville 704-774-5355.

5-frame nucs, \$160; Italian queens, \$28; new 2-frame extractor, \$275. Garry Whitley, Albemarle 704-982-0698.

5-frame nucs, w/new mated laying queen, \$170; mated queens, \$35. Sam Bolick, Concord 704-795-3900.

5-frame nucs, in pro-nuc box, no frame exchange required, \$145. Jeff Telander, Elon 919-618-8094, telander@gmail.com.

5-frame nucs, w/marked/mated queens in cardboard nuc box, avail thru Aug, \$170 ea; other bee supplies. John Pledger, Trinity 336-475-5137.

5-frame nucs \$150; Long Lang hive w/23 frames of bees & honey, \$400; treated for mites, queens marked. Ken Medlin, Hurdle Mills 336-364-1915.



Equipment For Sale

NH 273 hay baler \$1,200. Kenny Brotherton, Mooresville 704-450-6465.

FARM EQUIPMENT

NH 853 baler, 5x5, \$3,800; NH 256 rake, \$1,800; NH 260 rake, \$4,800; MF 848 loader, \$2,200. Frankie Shoffner, Liberty 336-339-5961.

NH 277 sq baler w/thrower, \$2,250; Cat D7 dozer, elec start, \$9,250; NH 55 rake, \$1,000. William Long, Mebane 336-376-6603.

1967 MF 135, gas, 2,300 hrs., GC, \$4,500. David Lomax, Denton 336-688-5313.

Einbock tine weeder, 20 ft., reseeding, underseeding, organic weeding, grassland care, EC, \$7,500. Kathy Davis, Mt. Pleasant 704-984-6488.

Millermatic 200 mig welder, EC, \$1,500; AC D17 parts, \$25 & up; pto for AC G, \$100. Phil Whitley, Stanfield 704-888-6387.

Papec hammer mill, pto driven, complete w/bagger, solid hammers, \$500. Eddie Moretz, Deep Gap 828-963-0883.

1956 Farmall 100 tractor, scrape blade, bush hog, disc, doub turn plow, lay off, \$4,500. Margaret Burgess, N. Wilkesboro 336-667-4775.

NH BR730 baler, 4x4, EC, \$5,000; Pittsburgh 2-trip plow, 14 in., new points, \$450. Gerald Zimmerman, High Point 336-887-2870.

JD 2440, loader, roll bar, canopy, \$9,500; 1974 MF 135, 6-spd, ps, good tires, \$4,500. Garner Jarrell, Mt. Airy 336-648-4288.

1952 Ford 8N tractor, new tires, wheels & clutch, GC; 1951 Ford 8N for parts or restore, \$3,000/both. Jim Gosnell, Asheville 828-407-8835.

9 tobacco trailers, 16 ft., \$300 ea; 2 Itnl 615 combines, grain & corn heads, \$2,500; Akron irrig system, \$10,000. Claude Hamlett, Leasburg 336-694-6874.

Cane 3 pt hyd hay spear, \$785; hiller w/plow, \$550; 3 pt hand sprayer, 55 gal, \$685; 5 ft. roto tiller, \$1,750. Chris Witherspoon, Valdese 828-381-6857.

JD 467 baler, mega-wide head, baled 410 bales; JD V rake; JD 17 ft. tedder, \$25,000/all. Jerry Triplett, Statesville 704-402-5167.

FARM EQUIPMENT

Grain box & trailer, GC, \$300; 2-bottom plow, GC, \$275. J. Lloyd Mabe, Danbury 336-703-8232.

Itnl Cub w/plow, cults, \$1,800; Ford 2000 tractor '78-'79 model, gas, needs work, \$3,800. Jeff Brittain, Hickory 828-327-4782.

IH 4140 skid steer for parts, complete, \$600; Ford 501 diesel tractor for parts, \$800; Ford diesel power unit, \$600. James Isley, Julian 336-263-1958.

JD tractors, 520, 420, 430, A, M, \$2,000-\$4,000. Philip Turner, Shelby 704-482-8851, 7-9 p.m.

JD 4960, 7420, 2940, 5400; Case 130 Puma; all GC, cabs, 4x4, \$95,000 & down. Frank Baumgartner, Princeton 919-330-8277.

2003 NH TN55D, tractor, 16-spd, cab, h/ac, 2,951 hrs., \$17,500; JD hay spear, 500 series, quick attach, \$500. John Wallace, Huntersville 704-201-4556.

NH BR740A rnd baler, 4x5, twine, wide p/u, new belts & tires, EC, \$11,500. Bernard Beck, Seagrove 336-879-5661.

Hay rake, 8-wheel, no welds, good pull, \$2,700; MF 2-rotor tedder, new, \$2,500. Derek Teague, Catawba 828-446-6111.

Hesston 745 rnd baler, \$6,000. Jim Wehunt, Cherryville 704-692-0891.

Cole 2-row planter, w/seed plates, \$400. Denise Stephenson, Willow Spring 919-819-4432, oldstage2@gmail.com.

NI corn picker w/husking bed, 2-row, shed kept, \$4,250; Pittsburgh RC151 rnd baler, shed kept, \$750. Kevin Heavner, Lincolnton 980-429-6004.

1953 Farmall Super M, ps, new tires, restored, \$8,000; 1956 Cub tractor, cults, GC, \$3,000. Jimmy Duncan, Indian Trl 704-989-0845 or 989-0376.

Woods belly mower, 42 in., fits Cub or 140 tractor, VGC, p/u or will deliv w/in 30 mi of Liberty, \$1,000; other equip. Kevin Collier, Liberty 336-215-7332.

H&H 3 pt sprayer, 100 gal, 10 nozzle boom, boomless nozzle, new roller pump, \$550. JD Burleson, Locust 704-707-5467.

4 JD rear wheel wgts, #A3404R, 140 lbs. ea, \$150 ea. Rick Ingram, Greensboro 336-420-9253.

Hog feeder, 12-hole, 55 in. across, 36 in. sides, holds appx 1 ton feed, GC, \$450. Lane Barbee, Richfield 704-773-0752.

Gleaner K combine, 350 Chevy motor; AC 2-row corn planter, AC 2-row corn head, straw chopper, 12 ft. grain head, \$8,000. Beverly Fields, Climax 336-317-7580.

NH 273 sq baler, EC, field ready, \$3,000. Dale Pardue, Hamptonville 336-468-2038.

NH 311 sq baler, \$3,500; Tar River 185 drum mower, 6 ft. \$3,500; NH roller bar rake, \$1,000; other equip. Stephen Hochstetler, Salisbury 980-234-0586.

Itnl 303 combine, 13 ft. grain head, used 2019 to cut wheat, 1 new front tire, \$1,300. Paul Neill, Mooresville 704-706-7467.

1952 Ford 8N, Ford 302 v8, ex sheet metal, new tires, stored inside, show tractor, \$9,500. Rudy Eubanks, Pittsboro 919-260-2501 or 542-3645.

1985 Ford diesel tractor, 3600 series, \$5,500 obo. Doug Roberts, N. Wilkesboro 336-667-2378.

AC 333 4-row sod planter, w/extra corn plates, \$1,200. L.C. Ritter, Ramseur 336-879-3357.

FARM EQUIPMENT

1981 Itnl 1086 w/cab, \$10,000; 1981 Itnl 1066, \$10,000; JD 4010, \$8,500; JD 3010, \$6,500; other equip. Henry Currie, Ellerbe 910-334-0404.

NI 4210 2-basket tedder, 10 ft. width, pull type, \$900; 2018 DR finish mower, 60 in. cut, B&S eng, 14.5 hp, \$1,500. Brandon Ward, Elk Park 828-783-1981.

1954 Farmall super A, VGC, cults, wheel wgts, new battery, \$2,500. Charles Eaker, Boomer 828-754-7447.

Farmall 706 tricycle, 8,176 hrs., new filters, belts, water pump, front tires, canopy, rops, (10) 75 lb. suitcase wgts, \$10,000 obo. Scott Morehead, Asheville 828-350-7602.

1962 Ford 601D work master, low hrs., 1 owner, VGC, garage kept, \$4,000. J. Johnson, Gibsonville 336-617-4231.

NH 1033 stack wagon, \$3,800. Johnny Harrison, Salisbury 704-639-0867.

IH 674 tractor, GC, fresh paint, good tires, RG, \$8,500. Roy Hanks, Reidsville 336-432-6578.

2015 JD X500 tractor/mower, 48 in. cutting edge, 24hp, 335 hrs., brush guard, field trax tires, \$3,500. Lisa Roach, Cherryville 704-747-2796.

2 rear tires, 15.5 x 38, appx half tread remaining, \$100/pair. Joseph Shaver, Salisbury 704-640-4514.

Wood chipper, pto, \$5,500; 22-disc TaylorWay harrow, \$800; Ford 3-bottom plow, \$300; (2) AC 72 combines, \$2,000/both. David Elliott Kernersville 336-416-4517.

Drag harrow, 9 ft., 3 pt, \$750. Russ Hanes, Glendale Springs 828-406-6365.

1952 JD B, 3 pt, \$3,650; w/o 3 pt, \$3,000; 1952 JD hyd cyl, \$350. Barry Lindley, Pittsboro 919-742-4009.

2 rear tractor rims, 28 x 12, 6-lug, GC, \$50 ea; 2 centers for 545 rear rims, \$50/both. Ralph Harris, Yadkinville 336-909-4922.

Case SC tractor, needs restoring, \$1,100. Dean Barr, Hiddenite 828-632-8918.

JD pull type disc, 10 front & 10 behind, \$100 obo; sm 1-section bog for fast hitch super A tractor, \$50 obo. Lentz Waugh, Stony Point 704-872-1671.

NH 451 mowing machine, crank is bent, \$200. T.C. Berrier, Lexington 336-764-1051.

NH 1069 bale wagon, 5,280 hrs., \$25,000; NH 575 sq baler, \$10,000; NH dolly, 260 & 258 hay rake, V-rake, \$5,000/all. R.G. Hammonds, Lumberton 910-734-2991.

NH 55 hay rake, GC, needs tires, \$1,600. Charles Swaim, High Point 336-259-3717.

Hammer mill, swinging type hammers, w/bagger, 40 ft. flat belt, \$325. Don Briggs, Salisbury 704-636-6336.

2009 JD 5065M, 4wd, canopy, self-leveling loader, wgts, turbo, 1,350 hrs., \$25,000. Mark Graber, Hamptonville 336-468-8256.

NH 273 baler, used 2019, \$2,000; Holland tobacco planter, \$350. Kenneth Chilton, Pilot Mtn 336-374-2410 or 399-1973.

Frontier RT1142 rotavator, 3 pt, \$1,200. Greg Lowe, Salisbury 704-239-5083, text only.

JD 2032 4X4, 541 hrs., EC, 300E loader, \$17,000. Jimmy Isley, Creedmoor 336-266-1673.



Equipment Wanted

3-yard soil mover; draw bar hitch. Johnny Fleming, Manson 252-213-4105.

Ford 3000 diesel tractor, GC, good paint. Ralph Kiziah, Hickory 828-396-5198. **Differential** for 1950s model

JD, GC, fair price. Charlie Morgan, Zebulon 919-413-4806. **Backhoe attach** for tractor, 3 pt, reasonable price.

Robert Burns, Holly Springs 919-552-6420.

JD CX gator, any cond; doesn't have to run, body cond doesn't matter, need the transaxle. Tom

Gale, Liberty 336-339-1070. **Drop spreader** for ag lime, GC. Jackie Strickland, Whiteville

Cults for Itnl Cub tractor. Isaac Perry, Bailey 252-235-5069.

910-234-0791.

Used cattle head catch gate. Darin Martin, Mt. Ulla 704-433-5689.

Ford 309 corn planter plates; corn, beans, sorghum & filler plates; Ford 309 corn planters for parts. Charles Chamelin, Kernersville 336-769-4418.

Box blade &/or rake, 5 or 6 ft., GC. Talmage Brown, Raleigh 919-302-0520.

MF 135 wheel & tire combo, 8-lug wheels, 12.4/28 or 11/28, GC. Phillip McBryde, Midland 704-326-6848.

Factory fork attach & bucket for Long 5320 front end loader; quick attach, not skid steer. Gary Michael, Lexington 336-239-3717.



Farm Labor For Sale

Energizer repair, afw, tsc, ssc, parmak, zareba, \$15/hr. Bobby Nichols, N. Wilkesboro 336-927-2850.



Farm Labor Wanted

1-2 men familiar w/taking down & moving grain bins. Johnny Fleming, Manson 252-213-4105.



Farmland For Sale

Land for sale must consist of at least 3 acres and be used for agricultural purposes, i.e. cultivation, raising livestock and/or other farm commodities.

Advertisers must indicate use of land.

53 ac hwy 87 E Elizabethtown, rd frontage, high elevation, close to beaches; can divide sm ac, \$250,000. Thomas Andrews, Lumberton 910-827-3563.

55+/- ac Ashe co, on north fork of New River, 2 adjoining tracts, \$6,000/ac. Pamela Orbison, Salisbury 704-754-2285.

107 ac Johnston co, 47 cropland, 60 cut over, replanted 2 y/o; deer, turkey, hog hunting, \$345,000. Frank Baumgartner, Princeton 919-330-8277.

Don't forget to renew your Agricultural Review The renewal card is on the front page of the June issue of the news-

paper. Just cut it out and mail it in,

or go online to www.agreview.org.

FARMLAND

20 ac Rowan co, wooded, hunting/fishing, paved rd frontage, \$180,000; 30 ac Davidson co, paved rd frontage, \$300,000. Eric Wilson, Salisbury 704-202-4875.

36 ac Gaston co, mostly bottom land, good for crops/pasture, lots of rd & water frontage, \$175,000. Jacob Rhyne, Dallas 704-263-4063.



Farmland Wanted

Land to lease for dove hunting, gun dog training, Forsyth or surrounding co. Randall Patterson, Winston-Salem 336-528-1074, Bill Cowan, 336-406-6007.

Farmland to lease for cattle or hay in Climax, Liberty, Randleman area. Todd Davis, Climax 336-382-1268.

Land to lease by father & son for deer, turkey, coyote hunting; Orange, Alamance, Caswell, Chatham. Steve Williams, Mebane 919-619-8335.

Land to lease for deer and/ or turkey hunting, Rockingham, Stokes, Caswell, Guilford and/or Forsyth co. Aaron Stutts, High Point 336-259-5286.

Deer hunting land to lease, Piedmont area, ref avail. Jim Bumgarner, Kernersville 336-338-1315, lv msg.



Hay & Grain For Sale

Fescue, sq bales, \$3 ea; old rnd bales, 4x4 & 4x5, \$15 ea. David Lomax, Denton 336-688-5313.

2021 orchard grass, fescue & fescue/orchard grass, horse, sheep, goat, \$5-\$8/sq bale; 2020 sq & rnd avail. Barry Lindley, Pittsboro 919-742-4009.

Fescue, sq bales, \$5; rnd bales, \$25. T.C. Berrier, Lexington 336-764-1051.

Fescue, fall cut, 4x4 rnd, appx 55 bales, twine & wrap, on pallets in shed, \$35 ea or \$25 ea/all. Scott Beasley, Denton 336-239-7602.

Orchard grass, horse quality, 45-50 lbs., \$6.50/sq bale, discount for over 100. Kenneth Chilton, Pilot Mtn 336-374-2410 or 399-1973.

Horse hay, spring 2021 cut, no rain, \$5/sq bale; \$25/rnd bale. Vernon Hill, Mt. Pleasant 980-621-5091.

2021 wheat straw, in field, \$3.50. Phil Graber, Hamptonville 336-468-2671.

Mixed orchard grass, 2020 cut, 4x4 rnd, \$30/bale. Noel McCraw, Hendersonville 828-808-5803.

2020 hay, \$3/bale. Tim Whitaker, Fairview 828-712-

Fescue hay, heavy sq bales, no rain, \$6 at barn; deliv avail for additional charge. Adam Moore, Monroe 704-361-2435.

Orchard grass mix, sq bales, \$5. J. Lloyd Mabe, Danbury 336-703-8232.

Wheat straw, clean, firm heavy bales, at farm, \$4 ea. R.G. Hammonds, Lumberton 910-734-2991.

Horse hay, deliv avail, \$35/rl. H. Davis, Elon 336-260-7606.

HAY & GRAIN

Horse hay, orchard grass/alfalfa, orchard grass & alfalfa, 50 lb. bales, \$10 & up. Derek Teague, Catawba 828-446-6111, teaguecattlefarm@yahoo.com.



Horses & Supplies For Sale

PLEASE NOTE: All equine 6 mos. or older must have a current negative Coggins test. Advertisers must supply the accession number of test, the name of lab doing the test, the date of test and results for each equine advertised.

Horse boarding, stables, tack room, pasture, places to ride, \$150/horse. Joe Snow, Thurmond 336-648-5997.

2-horse farm wagon, solid frame & wheels, new tongue w/doub tree, no bed, \$1,500. Martin Carter, Apex 919-255-2366.

Horse boarding, pasture yr rnd, barn access, fountain & water troughs, fed daily; exp owner, \$250/mo. Caroline Reynolds, Lawndale 704-472-4820.



Livestock For Sale

Reg red Angus bull, \$1,100 nego, or trade for reg red Angus calf/cow pair. John Doggett, Summerfield 336-462-1852.

Alpine dairy goats, kids & milkers, hand raised, \$250 & up. Leon Albright, Thomasville 336-250-7288.

Reg Santa Gertrudis, calves, \$650 & up; bulls, \$1,000 & up; cow/calf pairs, \$2,500 & up. Charles O'Bryant III, Reidsville 336-908-0276.

Reg Angus & SimAngus bulls, calving ease, efficiency, good feet/disposition, recent breeding exam, \$2,895. Steven McPherson, Snow Camp 336-263-6042.

Twin Holstein heifers for beef, dob 6/9/18, born as triplets w/bull, appx 1,000 lbs., \$650 ea. Tammy Foster, Taylorsville 828-320-7285.

Bred Angus cows, \$1,000 & up. Steven McMahan, Mocksville 336-998-2695.

Holstein heifer, 9 m/o, raised on farm \$600; pb Nubian does & bucks, \$200 & up, pending age/color. Mark Wilhelm, Cleveland 704-202-2564.

Nigerian dwarf bucks, dob 1/16/21, 1 blk, 1 spotted, both blue eyes, \$125 ea. Donald Edge, Hope Mills 910-425-5335.

Boer bucks, dob 6/20, reg herd, all shots, \$200 ea; 2 Boer/Fainting cross bucks, dob 1/21, \$125 ea. Dodd Linker, Clemmons 336-712-2484.

Nigerian dwarf bucklings, dob 2/21, adga reg, 2 polled, 2 debudded, moonspots, handled daily, \$250-\$350. Tracy Hardin, Forest City 828-248-2125.

Reg Angus bull, 4 y/o, Primus Fortress, reg #18694305, calving ease, \$2,250. Sanford Cable, Sugar Grove 828-297-3823.

2 reg Charolais bulls, polled, 10 m/o, moderate size, \$2,500; reg polled Charolais bull, 30 m/o, \$3,500. Gerald Dellinger, Vale 704-530-7899.

Kune Kune piglets, dob 4/13/21, \$75 ea; pigs for slaughter, \$450. Henry Antos, Mt. Gilead 910-417-9948.

LIVESTOCK

Jersey steer, \$650. Ritchie Bowman, Taylorsville 828-612-0787.

Charolais bulls & heifers, 7 mos & up, pb, polled, gentle, reg sires, \$850 & up. Johnny Harrison, Salisbury 704-639-0867.

10 Katahdin ewe lambs, dob 2/21, \$160 ea & up; Katahdin ram, 1 y/o, ready to work, \$225. Craig Vollman, Mt. Pleasant 704-467-3027.

Kiko/Savanna crosses, kidded early April, estab quality bloodlines, healthy, hearty; avail mid-July, \$125-\$150. David Ward, Burlington 336-266-1457.

Reg Blk Angus bulls, great epd's, Cowboy Up & Freightliner blood, weaned to breeding age, \$800 & up. Danny Dennis, Mt. Gilead 910-571-1114.

Nubian/Boer nannies, 2 y/o & 1 y/o, \$175 ea; Boer/Nubian bucklings, dob 3/21, \$100; reg Nubian nanny, 2 y/o, \$250. L.A. Mize, Lexington 336-250-4520.



Poultry & Supplies For Sale

Spring hatch chickens, Dominique, Copper blk maran, Rhode Island red; 10 chick min, \$3 & up. Joe Snow, Thurmond 336-648-5997, Saturday only.

3 poultry houses, lease or sell, 42 x 500, 2 wells, co water; currently in operation in upper Anson co, \$425,000. Tim Eatman, Polkton 704-254-7767.

Guinea keets, \$4 & up, depending on age; blk sex link pullets, \$5 & up. Nelson Pearce, Zebulon 919-868-5592.

Birmingham rollers, perf bred, \$20 & up; white racing homers, Bandit & Trenton blood, \$20 & up. Darrell Dennis, Randleman 336-318-9285, after 6 p.m.

240 adult Israeli waterers, w/hoses & saddles, \$300; 42 single jet brooders, \$400; other equip. Grover Foy, Maple Hill 910-330-6436.

6,000 started pullets, vaccs, debeaked, \$8 & up. E.D. Snider, Staley 336-708-2998.

Pied peacocks, around 10 m/o, beautiful colors, \$100. Jim Gosnell, Asheville 828-407-8835.

Orders for India blue & blk shoulder peacock chicks, \$25 & up. Richard Simmons, Clarendon 910-640-7114.

California, blue scale, Gambel, other quail; 8 varieties bobwhite; partridge, Philby, chukar, Hungarian, \$3 & up. Jimmy Furr, Stanfield 704-888-0213.

Blue laced red Wyandotte: 12 hatching eggs, \$60; chicks, \$15; started juveniles, \$30. Cheyenne Ertter, Salisbury 704-267-4008, text only.

Hens, 2-3 y/o, \$10 ea; started pullets, hatched on farm, \$3 ea; roosters, 20 wks & older, beautiful, \$15 ea. Caroline Reynolds, Lawndale 704-472-4820.

Fertile eggs, Spangled Old English game bantam, \$20/doz; Blue laced red Wyandotte, \$15/doz. Jackie Moore, Summerfield 336-706-9521.

Pheasant chicks, 5 breeds; quail chicks, 13 breeds, \$1 & up. Clint Gupton, Spring Hope 252-903-3638.

Australian blk swans & mute swans, \$400 & up; Cape Barren geese, \$400 ea. Jim Simpson, Indian Trail 704-361-6497.



Poultry & Supplies Wanted

Chicken house grinder, or just the gear box. Ritchie Bowman, Taylorsville 828-612-0787.

Silver duckwing bantam hens, possibly 2, 1-2 y/o, full blood; will offer \$15 ea. Robert Burns, Holly Springs 919-552-6420.



Seeds & Plants For Sale

PLEASE NOTE: Anyone offering nursery stock for sale in N.C. is required to obtain either a nursery or nursery dealer license. For more, contact the NCDA&CS Plant Industry Division at 800-206-9333 or 919-707-3730.

Morris Heading collard seeds, \$3/tsp; long handle dipper gourd seeds, \$3/pk. SASE, Leonard Moses, 2605 Laburnum Ave, Charlotte, NC 28205.

Native perennial plants, potted, colorful, ready for transplanting, \$4.95 ea; 18 or more, \$4.49 ea. Greg Bruhn, Raleigh 919-790-0480.

Boxwood bushes, 2-5 ft., around 400 avail, buyer digs, \$10 ea. Rhod Lowe, Salisbury 704-202-9605, Mon-Sat, 8 a.m.-6 p.m.

Scuppernong & muscadine plants, 4-5 ft., healthy, potted, instr incld, \$15. Bob Whitaker, Mocksville 336-469-4822, no texts

Blueberry rabbiteye plants, 14 m/o, Premier, Climax, Tifblue, Powderblue, \$7 ea; lrg order discount. Michael Roberson, Trinity 336-862-3488.

Heirloom pea seeds, speckled, shaped like blk eyed pea, 30-40 seeds, SASE + \$4. Suzanne Dorsey, PO Box 305, Advance, NC 27006.

Blueberry plant variety, early, mid, late season; lrg order discount, covid handling procedures, \$3.50-\$15. Michael Crippen, Garland 910-529-1469.

Sunflower seeds, 12-14 lb. flower, 15-18 in. diameter, SASE & \$3/25 seeds; \$5/50 seeds. N. Smoot, 6227 Welborn Rd, Trinity, NC 27370.

Cockscomb seeds, huge blossom head, crimson color, 18 in. stalk, about 200 seeds, SASE & \$3 cash. Barry Cox, 6225 Welborn Rd, Trinity, NC 27370.



Seeds & Plants Wanted

Horse apple trees, med green fruit, offer \$15; pepper plant seeds, different colors, offer \$1/pk. Shirley Burns, Holly Springs 919-552-6420.

Blk walnuts, w/outer hull off. Ralph Kiziah, Hickory 828-396-5198.

Small Animals For Sale

Tennessee redback rabbits, ground started, \$12 ea. Mark Hinson, Goldsboro 919-734-7800.

Mini Rex rabbits, purebred & pedigreed, for show, breeding, pets, \$20 & up. Barb Grubb, Hillsborough 919-732-6847.



Supplies For Sale

Log tobacco barn, 18x18, \$1,000 obo. Kenneth Chilton, Pilot Mtn 336-374-2410 or 399-1973.

FARM SUPPLIES

Plastic barrels, 55 gal, solid top, \$10; metal burning barrels, \$10; 275 gal totes, \$75;15 gal plastic, solid top, \$20. Jeff Brittain, Hickory 828-327-4782.

Used service entrance porcelain wire holders, appx 190, \$0.20 ea. Joe Beane, Asheboro 336-953-5919.

3 water solar panels, 4x10, GC, \$150 ea. Kent Lambeth, Winston Salem 336-209-8962.

Natural gourds, sm to lrg, for bird houses, crafts; clean environment, \$2 ea. Bob Whitaker, Mocksville 336-469-4822.

2 feed hand carts, hd, \$50 ea. Walt Johnson, Spring Hope 252-292-1816.

Fire extinguisher off combine, stainless steel, pressurized water type, 2 ½ gal, easily refillable, \$30. Gary Michael, Lexington 336-239-3717.

1936 JD W power unit, needs timing, \$4,000. Don Cameron, Sanford 919-499-7012.



Supplies Wanted

Lrg cast iron kettle, GC. Henry Zehr, Union Grove 336-468-6370.



Trucks & Trailers For Sale

Hd trailer, 14 ft. steel bed, stake side, dual axle, \$1,000. Bill Shaver, Concord 704-455-9863.

12 ft. trailer, tilt bed, 1-axle, GC, \$1,100; 12 ft. trailer, 2-axle, removable sides, GC, \$1,500. David Lomax, Denton 336-688-5313.

16 ft. trailer, 10,000 gvw, \$1,800. Gerald Zimmerman, High Point 336-887-2870.

1998 Ford F-150 X-tra cab, 300,000 mi, \$3,500 obo; 1991 Cherokee gooseneck livestock trailer, 20 x 7-1/2, \$3,500 obo. Phil Rucker, Hamptonville 336-468-1675.

Calico stock trailer, 16 ft., \$5,950; landscape trailer, 16 ft., \$3,450. H. Davis, Elon 336-260-7606.

1994 GMC Topkick dump truck, 12 ft. bed, 80,000 mi, doub frame, pintle hook, air gate/tarp, 1 owner, \$24,500. Russ Hanes, Glendale Springs 828-406-6365.

1980 Ford 1-ton dump, needs repair, gas tank & brakes, FC, \$1,650. Eric Mabry, Albemarle 704-985-2528.

1991 Dodge D250, 4wd, 3/4-ton, auto trans, Cummins diesel eng, \$2,500. David Elliott, Kernersville 336-416-4517.

Farm trailer, 12 ft., wooden bed & sides, clevis hitch, \$300. Charles Swaim, High Point 336-259-3717.



Trucks & Trailers Wanted

Ford Ranger, early-mid 1990s, reg cab, 4 cyl eng, 5-spd, manual shift, GC, reasonable price. Charlie Morgan, Zebulon 919-413-4806.

To keep up with the latest on the N.C. Department of Agriculture and Consumer Services, check out the department's blog at www.ncagr.gov/blog, and social media links.

Demand for NC beef increased during pandemic

The coronavirus pandemic has certainly presented challenges for people in all walks of life, and those in agriculture are no exception. However, it also brought an increased demand for many local agricultural producers across the state – producers like Honeycutt Farms in the Coats area of Harnett County.

When stav-home orders and supply chain issues just began affecting people last spring, Curt and Ashley Honeycutt had just begun some direct-toconsumer selling of beef from their cattle. Demand for their beef immediately skyrocketed. They got so many orders, that in March of 2020, they were backlogged to January and February of 2021. They relied on in-state meat processors, which were also seeing a huge increase in demand. So it took until this April to fully catch up and deliver beef that was ordered during the backlog.

The boost in business was a pleasant surprise for Curt who grew up with uncles on both sides of the family farming. He started helping the uncle on his mother's side around age 14, when his "granddaddy" hung up his farming hat.

"My job was to get up and feed the cows before school," Curt said. "It wasn't so much work to me then, and it's not so much work for me now."

That goes to show how much he enjoys farming, which he's been doing himself for about ten years now. The farm is about 800 acres, including pastureland, hay fields (of alfalfa and hybrid Bermuda grass) and row crops (of corn, wheat, soybeans and occasionally cotton).



Curt Honeycutt, who operates Honeycutt Farms with his wife Ashley, saw demand increase quickly for their beef in 2020 when the pandemic began. Demand

"These animals are looked after better than I look after myself," Curt said. "They're my first stop in the morning and last stop of the day. They're well cared for and looked after, and it doesn't really matter what we're doing, if something comes up with the cows, our plans change to take care of whatever comes up."

Ashley expected it would take at least a little marketing to get the word out about their new effort to sell some beef directly to customers. Marketing was a bit more in her wheelhouse than farming, at least when she first married Curt and joined him on the farm. She moved to North Carolina after earning a fashion merchandising degree in New York, and she was working in that industry. She now shares some of the farm life on

social media, and she was ready to share posts to get some attention for the farm. Instead, the pandemic created demand without any marketing. So there wasn't much need to promote that the cows are pastured-raised, grassfed and grain-finished, with no antibiotics or hormones added.

What the Honeycutts do with their cows is pretty typical of cattle farming in North Carolina. Like many cattle farmers in the state, they follow guidelines in the Beef Quality Assurance program, which is a national certification supported in the state by the N.C. Beef Council and the N.C. Cattlemen's Association. N.C. Cooperative Extension handles most of the training to help cattle farmers learn more about best practices such as safe low-stress handling

of cattle, proper vaccination and even recordkeeping.

Over the years, about 1,600 farmers have gone through the BQA training, and about 2,400 students have taken the training through their schools. Many of the measures have become commonplace among most farmers, even those who have not yet been officially trained, said Bryan Blinson, the Cattlemen's Association's executive director.

"It's a mindset and a roadmap," Blinson said. "BQA allows cattle farmers to start simple and cover the basics of good animal care, and it can get more complex from there – kind of like a puzzle. It can be a building process."

Ashley Honeycutt has actually taken a BQA certification course twice. She helps Curt stay on top of some of the things that have always been somewhat second nature to him – things like rotating the herd from one area of the pasture to another or soil testing.

"We're technically in the grass growing business. If we don't have a healthy pasture, we don't have healthy cows," Curt said. "We do soil tests occasionally to test to be sure we know what the nutrients are and know what soil amendments may need to be added to get it to a healthy level."

Their 100-acre pasture is broken up into separate paddocks so that the herd grazes on one area at a time.

"So each part of the pasture has a chance to regenerate," explained Ashley Herring, the director of consumer information for the N.C. Beef Council. "It's good for the soil and good for the forage that they're trying to grow there.

"It's one of the things we love to share – that our members want to be certified to take the best care of our animals. It also helps with sustainability in raising beef," Herring continued. "Our farmers take the initiative to be certified, and they want to take the best care of their cattle. That includes taking the best care of their land."

While many of the calves born and raised in North Carolina are sent to feed lots in the Midwest to "beef up" on corn grain, Blinson said most of their life is still spent growing up in a North Carolina pasture. Ashley Honeycutt said one of the misconceptions about cattle farming is that cows spend most of their time in crowded feed lots, but she and Curt say that's simply not the case.

"No matter where they are, you're going to see cows grouped together because they're herding animals," Curt said. "It doesn't matter if they're in the corner of a feed lot or the corner of a pasture, they group together because they want to. Part of that is their instincts for safety."

The Honeycutts believe in investing and caring for their cows in order to maintain a profitable operation. Cutting corners doesn't make sense to them because healthy cows create better beef and a better product for consumers. They recently shared some of their practices in a video produced with funds from the N.C. Tobacco Trust Fund Commission and the N.C. Cattlemen's Association.

"It's definitely a lifestyle," Ashley Honeycutt said. "Your whole life revolves around the farm and the crops and taking care of the cattle."

Pool owners asked to watch for invasive species

Nonnative invasive pests are an increasing threat to our agricultural systems and forests. In recent years, invasive species have caused widespread mortality to some trees – the emerald ash borer killing ash, hemlock woolly adelgid killing hemlock, and laurel wilt disease killing redbay and sassafras. "Two more nonnative invasive pests are at North Carolina's doorstep – the Asian longhorned beetle recently found in South Carolina and the spotted lanternfly recently found in Virginia," said Agriculture Commissioner Steve Troxler. "Both insects could cause devastating losses to North Carolina's forests, agriculture and landscapes."

'Poolside Pests' is a program aimed at increasing awareness of Asian longhorned beetle and spotted lanternfly. North Carolinians are encouraged to report the pests if they see them. Because of their attraction to water, these insects may be found in pools or pool filters. Essentially, pools across the state can serve as traps for these pests. Early detection is critical because management tactics are most successful when a new invasion is detected and reported quickly.

While the 'Poolside Pests' program targets pool owners and managers, it's important that everyone keeps an eye out because these insects can be found anywhere.

The Asian longhorned beetle is native to Asia and was first found in the U.S. in the mid-90s in New York. It has since popped up sporadically across the Northeast and Midwest until last year when it was found in



Pictured above is the Asian longhorned beetle.

the South for the first time and much closer to North Carolina than ever before. It attacks many species of hardwood trees, but prefers maple.

The spotted lanternfly is native to Southeast Asia and was first found in the U.S. in Pennsylvania in 2014. It is quickly expanding its range and, in 2018, was detected in Virginia and continues to spread toward North Carolina. It is a significant nuisance pest and a major pest of agriculture, specifically grapevines, fruit trees, hops, and many tree species.

All North Carolinians are encouraged to learn how to recognize and report these pests, by going to https://





Pictured in above photos are spotted lanternflies.

www.poolsidepests.com/. If you suspect you have found one of these pests, click on the Report a Pest link on this page.

'Poolside Pests' is a collaborative effort between the Plant Industry Division, N.C. Forest Service and N.C. State University Extension.